Epi Notes

North Carolina Department of Health and Human Services ◆ Division of Public Health

2000- 3

December 2000 - February 2001

In This Issue:

Status of Influenza Surveillance Data as of December 13, 2000

Prepared by Dr. J. Newton MacCormack, M.D., M.P.H., *Head, General Communicable Disease Control Branch*

The table below depicts data reported by North Carolina's "influenza-like illness" (ILI) surveillance sites as of December 13, 2000.

SENTINEL PHYSICIAN INFLUENZA DATA FOR NORTH CAROLINA

These rates (0-1%) do not differ substantially from those reported by the whole South Atlantic region for this period (0-2%).

Week Ending	Week #	Age 0-4	Age 5-24	Age 25-64	Age >64	Total ILI	Total Patients	% ILI
Oct. 7	40	5	4	1	0	10	1,458	1%
Oct. 14	41	4	0	1	0	5	2,203	0%
Oct. 21	42	6	3	4	1	14	2,685	1%
Oct. 28	43	3	1	5	2	11	2,883	0%
Nov. 4	44	1	2	3	1	7	2,835	0%
Nov. 11	45	1	3	2	0	6	2,180	0%
Nov. 18	46	9	8	7	0	24	2,405	1%
Nov. 25	47	3	4	5	1	13	1,773	1%
Dec. 2	48	4	4	7	0	15	2,121	1%

The first N.C. influenza virus isolate of the 2000-01 season was cultured from a Macon County woman. The patient became ill on Nov. 14, and the influenza B isolate was obtained from a nasopharyngeal swab taken on Nov. 16. She had no recent history of travel outside the region. Subsequently there have been two A/H1N1 isolates: one from a Watauga County college student and the other from a Caldwell County 12 year-old.

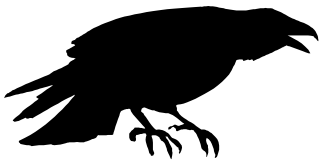
Nationally, in a pattern typical of late fall, several states have reported isolates of either type A (both H3N2 and H1N1, with HIN1 predominating) or B viruses.

Most counties across the state have recieved their complete supply of flu vaccine and all counties now have access to other agencies who have a sufficient supply of the vaccine. The state Immunization Branch is assisting in the distribution of available flu vaccine inventory to private providers and local health departments who have requested the vaccine.

State health officials say it is imperative for people to receive their flu vaccine now, since the peak flu activity has not occured and the flu season is expected to last for the next several months. ■

West Nile Virus Update

Prepared by Nolan Newton Ph.D, Chief, Public Health Pest Management Section, and Kimberly Hattaway, Public Information Officer, Division of Environmental Health, N.C. DENR



The discovery of an infected crow in Chatham County on October 20, 2000, marked the arrival of West Nile Virus (WNV) in North Carolina. Transmitted through the bites of mosquitoes, WNV is passed from wild birds to humans, horses and many wild animals. It causes severe illness in the elderly and infirm, and is fatal in about 10 percent of hospitalized cases. This African virus was introduced into the northeastern states in 1999 and has spread as far south as N.C. We anticipate that it will become established in N.C. during the summer of 2001 and is likely to cause disease throughout the state.

The Public Health Pest Management Section, N.C. Department of Environment and Natural Resources, has taken a proactive stance with regard to the threat of WNV. Its efforts have included monitoring for viral activity, promoting education about WNV, and preparing a statewide emergency response plan. In these efforts, the Section has collaborated with state agencies including Department of Environment and Natural Resources, Department of Health and Human Services, and Department of Agriculture and Consumer Services; Centers for Disease Control and Prevention and other federal agencies; and local health departments and mosquito control programs.

The Section has monitored WNV activity within the state through mosquito testing, dead bird testing, and testing of blood samples drawn from sentinel chicken flocks previously established throughout the state for tracking Eastern Equine Encephalitis virus. The Section maintains a toll-free phone number, dedicated e-mail address, and on-line computer form for reporting dead birds. Activity outside North Carolina is monitored via daily electronic communication with the CDC and other states, news articles, and weekly conference calls with the CDC and other states.

Educational efforts include training workshops for public health and mosquito control officials; providing public health officials with frequent updates about WNV; preparing brochures and other educational materials; developing web pages; and responding to media opportunities.

As WNV spreads throughout N.C., local health departments and mosquito control programs will be challenged to educate residents in personal protection against mosquito bites; promote environmental sanitation for better mosquito control; increase the frequency and extent of spraying for mosquito control where WNV is a human disease concern; work with the medical community to improve cooperation in WNV management activities; and monitor the spread and severity of the virus.

Although about 100 cities, towns and counties in N.C. currently have established mosquito control programs, WNV will spur others to start new programs as their citizens demand protection from this virus. State and local spending on mosquito and mosquito-transmitted disease control will need to be increased significantly to adequately manage the public health threat of WNV. Spending in other states where WNV has spread has increased from 20 to 100 percent in one year alone. Currently, about $6 million is spent by local programs each year on mosquito and mosquito-transmitted disease control. Additional funding for these local mosquito control programs will be required to meet the additional challenge of managing WNV.

For more information see http://www.deh.enr.state.nc.us/phpm/pages. ■

Health Disparities in the Southeastern United States: A Regional Call to Action

Prepared by J. Steven Cline, D.D.S., M.P.H., Chief, Section for Human Ecology and Epidemiology

The Convocation of Southern State Epidemiologists (CSSE) is an annual meeting that rotates among the Southeastern states each fall. At these meetings, staff from participating state epidemiology programs share problems and experiences, seek to learn from one another, and come away with new ideas for program improvements and initiatives. The 25th CSSE was held in Wrightsville Beach, N.C., in October 2000.

A central theme of the Wrightsville Beach meeting was geographic and ethnic group disproportionate morbidity and mortality rates for a variety of conditions in the Southeast. These disparities exist across the spectrum of disease states, from injuries (both intentional and unintentional) and infectious diseases (e.g., STDs) to chronic diseases (e.g., stroke, heart disease, hypertension). A variety of risk factors (e.g., obesity, smoking) and confounding socioeconomic factors contribute to these disparities.

The CSSE discussed ten strategies to counteract our regional health disparities:

(1) Develop a social marketing plan to present the case of a "Zero Tolerance for Health Disparities in the South."
(2) Build the capacity for information/experience sharing between states.
(3) Expand regionally focused applied research to answer the question, "Why the South?"
(4) Working through community-based organizations, create culturally driven programs to combat the disparities.
(5) Foster specific multistate collaborative and coordinated initiatives, such as an STD training center.
(6) Support economic development strategies like "Smart Start" to improve the quality of life, thereby improving health status.
(7) Seek increased – perhaps even disproportionate – funding from both public and private sources for solutions to our disproportionate problems.
(8) Develop an active political agenda for Public Health in the South.
(9) Advocate for the South through, for example, increased representation on boards, participation at meetings, and memberships in professional associations.
(10) Form a Council of State and Territorial Epidemiologists (CSTE) "Southern Health Foundation" to raise awareness, facilitate grant writing and other fund raising activities, and facilitate regional coordination. ■

Combatting Antibiotic Resistance: Recommendations for the Public Health Community

Prepared by Alison Bloom, graduate student, UNC School of Public Health

The problem of antibiotic resistance has increased dramatically over the past decade – antibiotics that were once used to fight bacterial infections are increasingly found to be ineffective in treatment. Overuse and misuse of antibiotics are the main factors accelerating the speed of resistance development. Antibiotic resistance is also affected by the use of antibiotics in agriculture and, to a lesser extent, the use of antimicrobial ingredients in common household cleaners.

Antibiotic resistance leads to prolonged illness, longer periods of infectivity, and greater risk of death. It is a serious public health issue since it can lead to serious disability and possibly death. It also leads to increased costs due to extra hospital days, multiple drug regimens, additional medical care, and lost productivity. It is difficult to appreciate the extent of the problem because it has not been monitored in a coordinated manner.

Recommendations to help fight the problem include:

- Development of a surveillance system to monitor regional changes in resistance of the most common bacteria including methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant enterococci (VRE), and penicillin-resistant *Streptococcus pneumoniae*.
- Education of providers and patients about the appropriate use of antibiotics and the increased risk of resistant infection with misuse, because patients often request antibiotics when they are not medically indicated and providers often prescribe them when asked.

- Continuing research about the epidemiology of antibiotic resistance, focusing on areas neglected by the pharmaceutical industry.
- Expansion of the Division of Public Health website to include background information about antibiotic resistance and educational materials for providers — this can also be used as a repository for surveillance data.
- Advocacy for prudent use of antibiotics in medicine and agriculture, increased funding for research, and development of hospital protocols for controlling resistant infections.
- Infection control education to remind providers of the importance of hand washing and isolation for controlling infections. Since antibiotic-resistant organisms in food can be transmitted by improper food handling, education of the public on proper food handling techniques is also important. ■

Assuring the Quality of HIV/STD Services

Prepared by Diane Matthewson, Public Health Nursing Consultant, and John Peebles, Administrative Officer, HIV/STD Prevention and Care Branch

The Quality Assurance, Training and Development (QATD) Unit was established within the HIV/STD Prevention and Care Branch in 1995. The mission of this unit is to enhance and improve HIV/STD internal and external programmatic activities that ensure the delivery of quality clinical services and other activities, including training and advocacy directed at the needs and values of customers.

A major activity for the unit is evaluation of delivery systems for local health department HIV/STD services in targeted counties in North Carolina. Counties are selected for assessment based on STD/ HIV/AIDS data provided by the Epidemiology and Special Studies Unit. High morbidity counties are selected and paired with comparable population low morbidity counties to assess parameters such as accessibility, availability, acceptability, reporting, practice standards and policies, and prevention and marketing activities. A 3-5 day onsite review is conducted by a multidisciplinary team composed of consultants from the State Laboratory of Public Health and staff from HIV/STD Prevention and Care Branch (QATD Unit, Prevention and Community Planning Unit and the Field Services Unit). The onsite review process was piloted in 1996 and since that time, a total of 18 site assessments have been conducted (12/18 were high morbidity counties, i.e. rate exceeds the state rate). The onsite review process includes:

Observation : patient flow, laboratory, and clinical practices

Review

- Encounter data, policies and procedures, patient records, and Community Diagnosis document
- Client and employee satisfaction **surveys**
- Administrative **interviews**

Feedback

Strengths and needs are identified based on standards defined by:

- Contract Addendum
- CDC Guidelines
- CLIA Guidelines
- STD Protocol Manual
- NCAC 15A .0202, .0204, .0101
- NCGS 130A 144-145,

Each completed site assessment includes feedback on findings regarding service accessibility, availability, acceptability and reporting. QATD staff plan to further analyze practice standards to identify trends and impact, if any, on morbidity.

Common Outcomes/Findings:

- **Trends**
  - Many agencies are offering HIV/STD services in a structure other than the traditional STD Clinic i.e. Adult Health, Family Planning, Communicable Disease, etc.
  - There is variable interpretation of certain morbidity card codes.
  - None of the counties formally track demand and turnaway data to provide the goal information for the contract addendum.
- **Strengths**
  - The staff designated as primary providers for HIV/STD services are very dedicated professionals.
  - Many agencies were very receptive and readily accepted feedback and recommendations on findings.
- **Needs**
  - All counties unanimously identified inadequate state and local funding as barriers to addressing recommendations.

- The need for routine and more frequent STD training and updates was continually voiced.
- Many counties required clarification and recommendations to address contract addendum items and requirements of the communicable disease rules for HIV/STD services.
- Many counties lacked adequate policies and procedures and standing orders to guide delivery of HIV/STD services.
- Several counties required assistance in identifying and meeting CLIA standards for laboratory services.
- The client-centered HIV/STD prevention counseling is evolving slowly in most counties.
- Additional training has been a continual request. ■

Human Health Effects of *Pfiesteria* Debated at National *Pfiesteria* Conference

Prepared by Thomas Morris, M.D., M.P.H., Medical Epidemiologist, Occupational and Environmental Epidemiology Branch

The National Conference on *Pfiesteria:* From Biology to Public Health, hosted by the Centers for Disease Control and Prevention (CDC), was held outside Atlanta, Ga. October 18-20, 2000. Members of the Communicable Disease Control & Epidemiology Section and Harmful Algal Blooms Program attended the conference, which attracted almost every prominent researcher and interested party involved with *Pfiesteria* inside and outside the United States. Other agencies and institutions of North Carolina also participated, including the Department of Environment and Natural Resources, the University of North Carolina at Chapel Hill, UNC-Greensboro, UNC-Wilmington, East Carolina University, NC State University, and several private foundations.

The adage "the more we learn the more we don't know" was truly applicable. Great strides have been made in describing the ecology of *Pfiesteria* organisms (NCSU's Applied Aquatic Botany Laboratory was especially prominent), and more insight has been gained about the physical and functional characterization of the toxic substances. The fish bioassay developed by NCSU's Dr. JoAnn Burkholder to detect toxic *Pfiesteria* was independently validated. Presentations were made on the environmental impact of *Pfiesteria* and other newly described organisms on fish health along the Eastern Seaboard. Data were also presented on methods to quickly detect organisms by DNA probing in the laboratory. Updates on prospective studies and presentations on human health aspects were given, attracting a lot of comment and concern but no consensus. Posters and abstracts were also shown on all aspects of *Pfiesteria*.

From a public health risk assessment and management standpoint, this comprehensive conference did not offer anything new or immediately useful: there is no toxin yet characterized (and thus able to detect and measure), no validated field assay to rapidly detect *Pfiesteria* organisms (which would be useful for investigating fish events), and no objective biomarker to confirm an exposure to *Pfiesteria*-related toxins. The CDC reviewed the May 2000 *Morbidity & Mortality Weekly Report* article saying that no PEAS (Possible Estuary Associated Syndrome) cases have been reported in the two-year study period. Discussion followed on whether there have been any documented *Pfiesteria*-related events since the surveillance began; this discussion included possible impacts from last year's extensive flooding along the coasts. At the end, a blue ribbon peer-review panel chaired by Dr. Jeffrey Samet issued a discursive report on the state of *Pfiesteria* knowledge, research and future directions. ■

Preventing Foodborne Illness Through Irradiation

Prepared by J. Newton MacCormack, M.D., M.P.H., Head, General Communicable Disease Control Branch

While somewhat controversial, irradiation of certain foods as a safeguard to prevent foodborne disease is now a reality. The process involves exposing raw food to radiation to kill bacteria and parasites. This treatment leaves no residue, and long-term studies have proven that it is a safe and effective means of preventing foodborne illness. Irradiation has been used successfully on poultry, fruits and spices and, this past December, the U.S. Department of Agriculture joined the U.S. Food and Drug Administration in approving the sale of irradiated ground beef.

Food safety relies on establishing multiple barriers against disease transmission. Thus, irradiation does not replace

requirements for sanitary food processing plants or the need for proper food storage and handling. However, it does reduce the risk of disease should one or more of those other safeguards fail. The outbreak of *Escherichia coli* 0157:H7 disease traced to a fast-food restaurant in the Pacific Northwest a few years ago left four children dead after eating hamburgers. Sanitation and monitoring procedures should not have allowed the ground beef to become contaminated, and proper cooking of the hamburger patties at the restaurant would have killed the *E. coli* bacteria. Both of those barriers failed. Irradiation of the ground beef kills such pathogens and provides another barrier against disease transmission. Widely used, irradiation will safely and reliably prevent a great deal of food-borne illness at very low cost.

Not all foodborne pathogens are susceptible to control by irradiation. While this technology works well for such organisms as campylobacter, cryptosporidium, *E. coli*, listeria, salmonella and toxoplasma, it does not kill bacterial spores nor does it work well against viruses like the hepatitis A virus and Norwalk-like viruses. Another problem is that the irradiation process causes wilting of leafy vegetables and sprouts. These disadvantages, however, should not deter its use where appropriate.

There are interesting parallels between irradiation and the advent of pasteurization some 100 years ago. There was a prolonged period when the public was uninformed about the benefits of pasteurization and was suspicious that it might harm their health or reduce the nutritional value of the milk. The vast majority of the public now recognizes raw milk as a potential health threat, and regulations prohibit the retail sale of non-pasteurized milk. Notwithstanding, the use of pasteurization has not diminished the need for sanitation in dairies or proper storage of milk. The public was slow to accept pasteurization at least partially because public health authorities did not advocate its use. That is not the case with irradiation. The American Medical Association, the World Health Association, the American Dietetic Association, the Centers for Disease Control and Prevention, and a variety of other organizations endorse irradiation as a means of preventing foodborne illness. ■

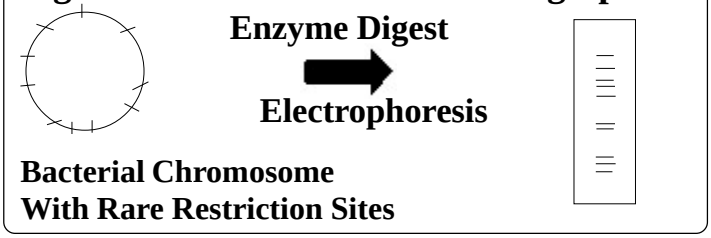
PulseNet and PFGE: An Overview

Prepared by Leslie Wolf, Public Health Scientist, State Laboratory of Public Health

The State Laboratory of Public Health has been participating in a national molecular subtyping network for foodborne pathogens, known as PulseNet, since mid-1998. This program was initiated in 1996 by the Centers for Disease Control and Prevention (CDC) and four regional laboratories (Washington state, Minnesota, Texas and Massachussetts) in response to a large *E. coli* O157:H7 outbreak linked to ground beef distributed in the western U.S. in 1993. PulseNet enables all participating public health laboratories to compare DNA fingerprints electronically in order to detect multi-state outbreaks as quickly as possible. This is only possible through the use of standardized pulsed-field gel electrophoresis (PFGE) protocols provided by the CDC to all PulseNet participants.

The main roles of PulseNet are to support epidemiologic investigations of foodborne outbreaks and to enhance surveillance activities. PFGE can distinguish between bacterial isolates that appear to be similar serologically, such as *E. coli* O157:H7 isolates. PFGE also can link patients to tainted food from restaurants and grocery stores; however, PFGE is not a fast testing procedure. It is labor intensive, and requires approximately three days from the time the isolate is received by a laboratory to get a result. The protocol involves the isolation of intact genomic DNA from enteric pathogens, and restriction with rare cutting enzymes (Figure 1). Restriction of DNA produces, on average, 20 bands, separated by electrophoresis through an agarose gel. This separation of bands, requiring approximately 18 hours, produces the DNA fingerprint. The image of the fingerprint is transferred directly to a computer and is analyzed with special

Figure 1 **DNA Fingerprint**



software known as Molecular Analyst Fingerprinting Plus. With the use of this software, all gel analysis is standardized and results can be compared not only from gel to gel, but also from laboratory to laboratory.

The criteria for classifying DNA fingerprint patterns as part of the same or different outbreaks can be somewhat subjective. The use of two or three different restriction enzymes may be required to distinguish between seemingly indistinguishable outbreak patterns. Dr. Fred Tenover and others* developed guidelines to aid in the classification. The "Tenover criteria" include the following:

- Indistinguishable = same/identical strain
- Closely related = probably an outbreak strain: differs by 1 genetic event (1-3 band differences)
- Possibly related = possibly an outbreak strain: differs by 2 genetic events (4-5 band differences)
- Different ≥ not an outbreak strain: differs by ≥ 3 genetic events (=6 band differences)

The organism being analyzed must be considered as well, since some pathogens show much diversity in their patterns while others show less diversity. For example, *Salmonella typhimurium* is highly variable, while *S. enteritidis* is highly clonal. Thus, without known epidemiological links, PFGE typing can lead to erroneous conclusions.

At the State Laboratory, the enteric bacteriology and PFGE units work closely with each other and with state epidemiologists to detect and investigate outbreaks. State epidemiologists notify local health departments of patients who have closely related DNA fingerprints so that food histories can be obtained. Our hope is that early detection and intervention will decrease the number of people who develop foodborne illnesses. Currently, we are able to perform subtyping for *E. coli* O157: H7 isolates, *Salmonella* serotypes, *Shigella sonnei*, *Vibrio parahaemolyticus* and *Staphylococcus aureus*, including methicillin resistant isolates. Other pathogens will be added as time and availability of personnel permit. Further questions about this service can be directed to Dr. Leslie Wolf at (919) 733-7834.

*Tenover, F., Arbeit, D., Goering, R.V., et. al. 1995. Interpreting Chromosomal DNA Restriction Patterns Produced by Pulsed Field Gel Electrophoresis: Criteria for Bacterial Strain Typing. *Journal of Clinical Microbiology*, 33: 2233-2239. ■

Racial and Ethnic Disparities in Sexually Transmitted Disease Morbidity

Prepared by Bill Jones, Epidemiologist, and Del Williams, Manager, Epidemiology and Special Studies Unit, HIV/STD Prevention and Care Branch

The effect of sexually transmitted diseases (STDs) goes far beyond the physical manifestations of the infection itself. According to the Institute of Medicine (1997), "STDs are hidden epidemics of enormous health and economic consequences in the United States." This is particularly true in the South where many STDs occur with greater incidence than in other parts of the country. North Carolina has high rates of many STDs including syphilis, gonorrhea and chlamydia. The epidemic of STDs, including HIV, affects tens of thousands of North Carolinians every year and can have severe and sometimes deadly consequences.

Many STDs are disproportionately represented for racial/ethnic minorities both nationally and locally. In North Carolina, these disparities are particularly evident among African Americans as compared to whites. According to the Centers for Disease Control and Prevention's publication, *Tracking the Hidden Epidemics*, the reasons for these disparities are unclear, but may be "due, in part, to the fact African Americans are more likely to seek care in public clinics that report STDs more completely than private providers. However, this reporting bias does not fully explain the differences. Other important factors that contribute to disparities include the distribution of poverty, access to health care, health-seeking behaviors, the level of illicit drug use, and social networks with high STD prevalence."

In comparing the 1999 rates of STDs per 100,000 population in North Carolina, several disparities are noted for racial/ethnic groups as compared to non-Hispanic whites. For African Americans, HIV disease (includes HIV and AIDS) is almost 10 times higher (65.1 : 6.8); gonorrhea is just over 20 times higher (958.2 : 47.4); and early syphilis is just over 15 times higher (53.4 : 3.5). For American Indians, HIV disease is almost 3 times higher (18.6); gonorrhea is almost 5 times higher (224.0); and early syphilis is almost 15 times higher (50.6). Similar inequities for rates among Hispanics were also noted. HIV disease is just over 3 times higher (22.8); gonorrhea is almost 5 times higher (236.9); and early syphilis is

almost 10 times higher (33.7) among Hispanics. Additional rate information is available from the *North Carolina 1999 STD Surveillance Report.*

In North Carolina, the relative incidence of HIV has increased through the 1990s among African Americans, women (especially African American) and Hispanics. Women represented 22.7% of all HIV disease reports in 1990, but by 1999, represented 32.4%. In 1990, African American women represented 18.4% of all HIV disease reports. By 1999, they represented 26% of all reports, which equates to a 41% increase in proportion for that group. Additional HIV trend information is available from *The 2001 HIV Prevention & Community Planning Epidemiologic Profile for North Carolina.*

The prevention and control of STDs is a difficult task given the complex societal issues surrounding them. It is important for everyone who works in treating and preventing STDs to be aware of any disparities in morbidity. Awareness can help public health professionals and others properly plan prevention and education efforts and also help clinicians in better screening and treating patients. In order to properly describe disparities and trends in STDs, it is essential that health care providers make complete, timely and accurate reports of any diagnoses as required by state law.

The Epidemiology and Special Studies Unit of the HIV/STD Prevention & Care Branch maintains morbidity surveillance information for North Carolina STDs including infection with human immunodeficiency virus (HIV), gonorrhea, chlamydia and syphilis as well as acquired immunodeficiency syndrome (AIDS). Additional statistics about STDs as well as the reports mentioned above are available from our web site at www.schs.state.nc.us/epi/hiv/surveillance.html. ■

World AIDS Day 2000

Prepared by Myra Allen, Public Health Educator, HIV/STD Prevention and Care Branch

The North Carolina HIV/STD Prevention and Care Branch hosted its Annual Governor's World AIDS Day Volunteer Service Awards on November 28, 2000 at the Jane S. McKimmon Center on the campus of North Carolina State University. The theme was "AIDS – Make a Difference!" A celebration of caring and hope, this event emphasized that all North Carolinians can make a positive difference in improving the state's health status. More than 400 people attended the conference. The keynote speaker was Rev. Dr. Leon Howard Sullivan of Opportunities Industrialization Centers of America. For information on upcoming events, please contact Myra Allen at (910) 486-1710.

Award Recipients

Youth Category:
Antonio Steed, High Point, N.C.
Youth Educating About HIV/AIDS (Y.E.A.H.), Monroe, N.C.

Organization Category:
Cumberland County HIV Task Force
National Council of Negro Women (Fayetteville Area Section)

Individual Category:
Jeri Barnes, Goldsboro, N.C.
Linda Clark, Angier, N.C.
David Harter, Raleigh, N.C.
Dexter Ray "Bap" Emanuel, Lumberton, N.C.
Tiffany Frazier, Durham, N.C.
Rhonda F. Reid, Durham, N.C.
Paul Holmes, Charlotte, N.C.
Michael Rodden, Raleigh, N.C.
Gerry Shanley, Raleigh, N.C.
Helen Sinclair, Lumberton, N.C. ■

NC DHHS State-level Bioterrorism Symposium and Exercise

Prepared by Lou Turner, Chief, State Laboratory of Public Health

Because North Carolina is home to a large number of military facilities, high-tech industries, and universities that conduct research, our state makes an attractive target for would-be terrorists. Fortunately, North Carolina has recognized this threat and is working to improve our capacity for detecting infectious diseases that can be used as bioweapons and to enhance our ability to respond should such an attack occur. As part of this effort, the Department of Health and Human Services conducted a

one-day panel discussion and exercise with top state and local officials and agencies that would play a critical role in responding to a bioterrorist attack. The event was held November 16, 2000 on the North Carolina State University Centennial Campus, with 118 people attending.

In the morning discussion panel, national and state experts discussed all aspects of Bioterrorism. Policy issues were addressed by David Siegrist from the Potomac Institute for Policy Studies; Russ Enscore and Stacy Marshall from the Bacterial Zoonosis Branch of the Centers for Disease Control and Prevention (CDC) described the roles the CDC would play; Doug Hoell, Director of Operations for the NC Division of Emergency Management, provided insight into the state's Emergency Management response capabilities; Kathy Helig, N.C. Hospital Association, described the critical issues that must be addressed when hospitals provide medical support; and Dr. Lew Stringer, Commanding Officer of the State Operations Response Team (SORT), vividly described what emergency medical support was required in the initial days following a bioterrorist attack.

Attendees were invited to play one of three roles: Participant, Observer, or Facilitator. Participants broke into groups based on function and responded to the situation presented based on experience and knowledge and the current plans and procedures used within their agencies. Observers supported the Participants in their functional groups as they developed responses to the situation. The Facilitators provided situation updates and moderated group discussions and provided additional information as needed. The exercise was a 6-hour interactive tabletop exercise consisting of four modules, each of which portrayed a milestone in a response to a bioterrorism attack in Raleigh. Module 1 described a Covert Release and the challenges of detecting and identifying a public health emergency. Module 2 was the Discovery phase encompassing the period during the investigation and identification of the causative agent and the initial response. Module 3 described the Response and followed the integration of state and local responders and initial contact with federal resource providers. Module 4, Response and Recovery, focused on issues associated with multijurisdictional mitigation and restoration efforts over time.

Each module began with a multimedia situation briefing. The designated functional groups discussed probable actions and coordination efforts. Interaction among functional groups was encouraged to promote communication and to integrate response activities. The exercise addressed both operational and policy-level responses to a public health emergency with the emphasis on developing the best possible response through problem identification, coordination, and integration of capabilities, innovation and resolution. After each module, there was a moderated discussion period that allowed for sharing between functional groups.

The symposium and exercise were well-received and the Department was successful in bringing all the necessary parties together to begin addressing the public health response to bioterrorism. It is anticipated that this will be an on-going activity to ensure continued enhancements to response plans. ■

Employee Recognition

Prepared by Patsy West, Administrative Assistant, Section for Human Ecology and Epidemiology

The work that each and every employee of the Section for Human Ecology and Epidemiology performs on a daily basis is the key to the success of our programs. It is the individual contribution of hard-working and dedicated employees that allows us, working collectively, to make a difference in the lives of the people we serve –the people of North Carolina. In acknowledgement of outstanding work, one person from the Section will be selected each quarter for formal recognition by the Section Management Team. All permanent and full-time federal assignees are eligible for recognition. Selection criteria are: service excellence, teamwork, heroism, volunteerism, safety and wellness, and significant contribution to the morale or effectiveness of one's work unit.

Diane Tew

The first recipient, Diane Tew, was nominated for Service Excellence. Diane functions as the Budget Manager of the HIV/STD Prevention and Care Branch with a budget in excess of $37 million. Her responsibilities include the day-to-day management of the budget; preparation of budget revisions as required; oversight of accounts payable functions; preparation of grant financial reports; tracking of funds availability; and coordination with program managers. Diane has been a state employee for more than 15 years, all of which have been in public health. She began

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Reported Communicable Diseases, North Carolina, January-December 2000

Disease	Year-to-Date (Fourth Quarter)			4th Quarter 2000	Comments / Notes
	2000	1999	Mean (95-99)		
Botulism	**1**	2	1	1	
Brucellosis	**3**	0	2	2	
Campylobacter	**533**	544	584	129	
Chlamydia, lab reports	**21,985**	21,812	8,395	5,125	
Cryptosporidiosis	**28**	35	-	7	Note 1 & 2
Dengue	**3**	1	2	1	
E. coli O157:H7	**90**	74	85	20	Note 3
Ehrlichiosis, Granulocytic	**2**	0	-	0	Note 1 & 2
Ehrlichiosis, Monocytic	**11**	12	-	5	Note 1 & 2
Encephalitis, California group	**7**	10	-	1	Note 1 & 4
Encephalitis, Eastern Equine	**1**	0	-	1	Note 1 & 4
Foodborne, other	**11**	7	34	4	
Foodborne, staphylococcal	**2**	58	20	0	
Gonorrhea	**17,823**	19,428	19,545	4,056	
Hemophilus influenzae	**23**	36	28	3	
Hepatitis A	**154**	167	164	38	
Hepatitis B, acute	**256**	224	276	74	
Hepatitis B, chronic	**635**	735	666	180	
Hepatitis C, acute	**20**	33	-	7	Note 1 & 4
HUS-TTP	**2**	10	-	1	Note 1 & 2
HIV/AIDS	**1,477**	1,557	1,726	63	Note 5
Legionellosis	**16**	15	18	3	
Leptospirosis	**1**	1	0	0	
Lyme disease	**46**	74	64	5	
Malaria	**36**	36	27	9	
Meningococcal disease	**39**	49	74	7	
Meningitis, pneumococcal	**49**	45	54	7	
Mumps	**9**	9	20	3	
Rabies, animal	**551**	442	615	109	
Rocky Mtn. Spotted Fever	**77**	152	139	20	
Rubella	**87**	38	40	19	
Salmonellosis	**1149**	1331	1302	320	
Shigellosis	**400**	211	508	238	
Strepto. A, invasive	**88**	48	-	20	Note 2
Syphilis, total	**1,101**	1,204	1,775	225	Note 6
Toxic Shock Syndrome	**5**	1	3	0	
Tuberculosis	**448**	488	504	182	
Tularemia	**2**	1	1	0	
Typhoid Fever	**3**	3	3	1	
Vibrio vulnificus	**2**	6	-	0	Note 7
Vibrio, other	**9**	9	-	3	Note 2
Vanco. Resistant Enterococci	**434**	273	-	113	Note 2
Whooping cough	**111**	104	131	34	

Preliminary data, as of 1/4/2001. Quarters are defined as 13-week periods. Notes: 1. Not reportable in this entire time period; 2. Became reportable 8/1/98; 3. Became reportable 10/1/94; 4. Became reportable as such 8/1/98; previously within other category ("Encephalitis"; and "Hepatitis, non A-non B"); 5. Earliest report with HIV infection or AIDS diagnosis; 6. Primary, secondary and early latent syphilis; 7. Became reportable 7/1/97.

(Continued from Page 9)
her employment with the Division of Health Services in the Epidemiology Section on May 28, 1985 and was promoted to the State Center for Health Statistics on July 1, 1997. The HIV/STD Prevention and Care Branch of the Section for Human Ecology and Epidemiology was very fortunate when Diane returned to become the Budget Manager. Her willingness to help and her dedication to the entire Section's success is evidenced by the assistance she provides to new budget employees both within and outside the Section. Whether it is explaining a budget revision procedure or printing reports, she always finds time to accommodate requests for help.

Diane will receive a certificate of recognition for service excellence and a local restaurant gift certificate. ■

NC Featured at National STD Meeting

The 2000 National STD (Sexually Transmitted Disease) Prevention Conference, co-sponsored by CDC and the American Social Health Association (ASHA), was held December 3-7 in Milwaukee, Wis. Featured presentations and posters from the branch and community-based organizations included:

- "Successes and Struggles of Creating an Integrated HIV and STD Program" – William Petz and Evelyn Foust
- "Engaging Communities to Eliminate Syphilis: Lessons From NC" – Jan Scott *et al*
- "Creating Political Will Around STDs: National and State Advocacy" – Evelyn Foust *et al*
- "The Faith Initiative" – Rev. E.L. White

In addition, Alan Muriera, a health educator with Wake County Human Services, was recognized by ASHA with the Presidential Award for Excellence in Education. ■

Meet the Author

Prepared by Lisa Abatemarco, M.P.A., Assistant Section Chief, Section for Human Ecology and Epidemiology

On March 26, 2001, in conjunction with the UNC-CH School of Public Health, the Division of Public Health will host an evening with Ms. Laurie Garrett, author of the best-selling book, *Betrayal of Trust: The Collapse of Global Public Health*. This event will be held at the Friday Center for Continuing Education – Gruman Auditorium and will also be broadcast via PHTIN.

Ms. Garrett, a Pulitzer Prize-winning reporter, has been a health and science writer for Newsday since 1988, and is a frequent contributor to such publications *as The Washington Post, The Los Angeles Times*, and *Foreign Affairs*. Previously, she was science correspondent for National Public Radio. She is also the recipient of the George Foster Peabody Broadcasting Award and the National Press Club award for Best Consumer Journalism. Her book, *The Coming Plague* (1994), was named one of "The Best Books of 1994" by both *The New York Times Book Review* and *Library Journal*.

The evening will begin at approximately 5:30 p.m. State Health Director Dr. A. Dennis McBride and Dr. William Roper, dean of the UNC School of Public Health, will welcome and introduce Ms. Garrett. The presentation is expected to last until approximately 7:00 p.m. at which time a reception and book signing will be held with the author in the Atrium. Her books will also be available for sale at that time. Please contact Lisa Abatemarco at 919-715-6736 or email Lisa.Abatemarco@ncmail.net for additional information. ■

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500 copies of this public document were printed at a cost of $100 or $.20 per copy. 01/01

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